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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,310	09/27/2004	Alessandro Galbiati	NPTS100001000	1922

22891 7590 04/17/2007  
LAW OFFICE OF DELIO & PETERSON, LLC.  
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NEW HAVEN, CT 06510

EXAMINER
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PENG, KUO LIANG

ART UNIT	PAPER NUMBER
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1712

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/17/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/509,310

Applicant(s)

GALBIATI ET AL.

Examiner

Kuo-Liang Peng

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 2/12/07 Amendment.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 and 13-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The Applicants' amendment filed February 12, 2007 is acknowledged.

Claim 12 is deleted. Claims 2, 7-8, 10-11 and 13 amended. Claim 16 is added.

Now, Claims 1-11 and 13-16 are pending.

2. Claim objection(s) in the previous Office Action (Paper No. 080506) is/are removed.

3. Claim rejection(s) under 35 USC 112 in the previous Office Action (Paper No. 080506) is/are removed.

4. Claim rejection(s) (Claims 5-9) under 35 USC 102 in the previous Office Action (Paper No. 080506) is/are removed.

For Claims 5-9, Applicants argument in Remarks, page 13, 3<sup>rd</sup> paragraph and Annexes 1-2 are persuasive.

5. The text of those sections of Title 35, U.S. code not included in this action can be found in prior Office Action(s).

***Claim Rejections - 35 USC § 112***

6. Claim 16 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Examiner is not able to find a basis for the term “a linear or branched polymer” in Claim 16 (lines 7-8) because a **terminal functional** group-containing linear or branched polymer is obtained in step a) as indicated in canceled Claim 12, rather than **any** linear or branched polymer.

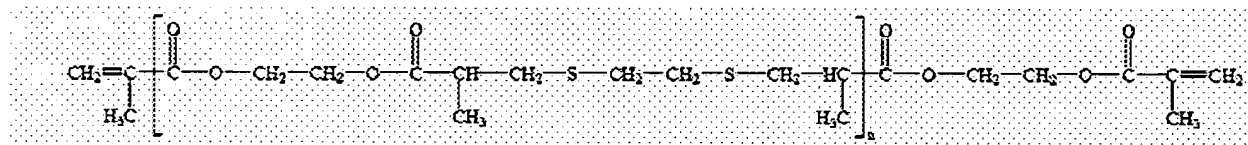
***Claim Rejections - 35 USC § 102 and 103***

7. Rejection of Claims 1-4 under 35 USC 102(b) as being anticipated by Galbiati (US 6 221 994) is maintained because the rejection is adequately set forth in paragraph 5 of Paper No. 080506. Applicant's arguments have been fully considered but they are not persuasive. The focus argument related to the core patentability is discussed below.

For Applicants' argument (Remarks, page 11, first paragraph to page 14, 3<sup>rd</sup> and last paragraphs and Annexes 1-2), Applicants appears to argue that before

Art Unit: 1712

Galbiati's polymers contain  $-\text{OC}(\text{O})-\text{CH}_2\text{CH}_2-\text{S}-(\text{CH}_2)_2-\text{S}-\text{CH}_2\text{CH}_2-\text{C}(\text{O})\text{O}-$  and those of the claimed invention contain  $-\text{OC}(\text{O})-\text{CH}_2\text{CH}_2-\text{S}-\text{CH}_2\text{CH}_2-\text{C}(\text{O})\text{O}-$  where in both instances, the moieties  $-\text{OC}(\text{O})-$  and  $-\text{C}(\text{O})\text{O}-$  are considered as **two electronegative groups**. However, Examiner disagrees. For example, as mentioned in the previous Office action, the  $-\text{O}-\text{C}(\text{O})-\text{CH}(\text{CH}_3)\text{CH}_2-\text{S}^*-\text{CH}_2\text{CH}_2-\text{S}^{**}-$  linkages in the intermediate polymer recited in col. 7 and 8,



contains  $-\text{O}-\text{C}(\text{O})-\text{CH}(\text{CH}_3)\text{CH}_2-\text{S}^*-\text{CH}_2\text{CH}_2-\text{S}^{**}-$  linkages that read on the linkages in the polymers of the claimed invention where  $-\text{C}(\text{O})-$  corresponds to **one** of the electronegative groups and  $-\text{S}^{**}-$  corresponds to **the other** electronegative group. Since in the instant claims, there is **no specific linkages** (i.e., the linkages derived from specific alkenyl groups) recited, Galbiati's polymers broadly read on those of the instant claims because the aforementioned linkage  $-\text{O}-\text{C}(\text{O})-\text{CH}(\text{CH}_3)\text{CH}_2-\text{S}^*-\text{CH}_2\text{CH}_2-\text{S}^{**}-$  does contain  $-\text{CH}(\text{CH}_3)\text{CH}_2-\text{S}^*-\text{CH}_2\text{CH}_2-$  moiety.

For Applicants' argument (Remarks, page 14, 4<sup>th</sup> paragraph and page 15, 1<sup>st</sup> paragraph), Examiner disagrees because the instant claimed **does not** limit to the

polymers with the linkages that are alleged to result in the physical-chemical properties different than those of Galbiati's polymers.

8. Rejection of Claims 1-9, 11 and 13-14 under 35 USC 103(a) as being unpatentable over Galbiati in view of Quis (US 4 340 707), rejection of Claims 14-15 under 35 USC 103(a) as being unpatentable over Galbiati in view of Quis as applied to Claims 1-9, 11 and 13-14 above, and further in view of Sullivan (US 4 231 956) and rejection of Claim 10 under 35 USC 103(a) as being unpatentable over Galbiati in view of Quis as applied to Claims 1-9, 11 and 13-14 above, and further in view of Erickson (US 3 397 189) are maintained because the rejection is adequately set forth in paragraphs 7, 9, 11[10] of Paper No. 080506. The newly added Claim 16 is rejected over similar ground. Applicant's arguments have been fully considered but they are not persuasive. The focus argument related to the core patentability is discussed below.

For Applicants' argument (Remarks, page 16, 2<sup>nd</sup> to 3<sup>rd</sup> paragraphs), Examiner disagrees because Galbiati in view of Quis does teach the polymers having the same claimed linkages despite that fact that Galbiati alone does not. As such, both should have the same physical-chemical properties.

For Applicants' argument (Remarks, page 16, 4<sup>th</sup> and 5<sup>th</sup> paragraphs and page 17, 1<sup>st</sup> paragraph), the alleged stiffening phenomenon is merely an opinion, not evidence. The arguments of counsel cannot take the place of evidence in the record. *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965); *In re Geisler*, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997) Attorney statements which are not evidence and which must be supported by an appropriate affidavit or declaration. See MPEP 2145 (I).

For Applicants' argument (Remarks, page 17, 2<sup>nd</sup> paragraph to page 18, 1<sup>st</sup> paragraph), the unexpected result demonstrated in the 37 CFR 1.132 declaration is not persuasive because it is not commensurate with the scope of the claimed invention.

For Applicants' argument (Remarks, page 18, 2<sup>nd</sup> and 3<sup>rd</sup> paragraphs), Examiner disagrees because Quis specifically teaches hydrogen sulfide is preferred and a motivation thereof is stated in col. 3, lines 8-14 and Examples. Furthermore, Quis does teach the use of a basic catalyst **in general**. Although, an inorganic basic catalyst is used in Quis' Example 1, this is merely a preferred embodiment. As a matter of fact, Quis also teaches the use of an organic basic catalyst in Example 2. Given that a basic catalyst can be either organic or inorganic, *prima facie* case of

obviousness exists. Especially, Applicants do not show the **criticality** of using an organic basic catalyst.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

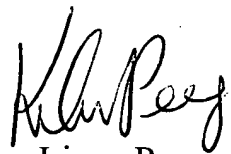
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is



Art Unit: 1712

(571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

klp  
April 11, 2007

  
Kuo-Liang Peng  
Primary Examiner  
Art Unit 1712